

cont.
B'
joining of the joint edges perpendicular to the joint edges, a locking groove formed in an underside of a first one of the floorboards and extended in parallel therewith and spaced from the joint edge, and a portion projecting from a second one of the floorboards, said portion supporting, at a distance from the joint edge, a locking element cooperating with the locking groove, wherein said tongue is anglable into the groove, and wherein the locking element is insertable into the locking groove by mutual angular motion of the floorboards about upper portions of the joint edges,

wherein in a joined state, the cooperating upper abutment surfaces are limited horizontally inwards from the joint edge and horizontally outwards to the joint edge by an inner vertical plane and an outer vertical plane, respectively, the tongue-and-groove joint is so designed that there is in the groove between the inner vertical plane and the outer vertical plane and below the tongue, a space which extends horizontally from the inner vertical plane and at least halfway to the outer vertical plane, an uppermost surface of the locking element is below the first plane, and at least a portion of the lower abutment surfaces are positioned outside the outer vertical plane, and

wherein in an angling state, the tongue-and-groove joint is further so designed that the floorboards, during a final phase of an inwards angling when the locking element is inserted into the locking groove, can take a position where there is space in the groove between the inner and the outer vertical plane and below the tongue.

2. (Amended) The locking system as claimed in claim 1, wherein said space in the joined state is horizontally extended below the tongue all the way from the inner

CMT.
B1
vertical plane to the outer vertical plane, so that no part of the lower abutment surfaces is positioned inside the outer vertical plane.

3. (Twice Amended) The locking system as claimed in claim 1, wherein said space during the final phase of the inwards angling is horizontally extended below the tongue all the way from the inner vertical plane to the outer vertical plane.

B2
4. (Twice Amended) The locking system as claimed in claim 1, wherein the groove in the joined state has an upper and a lower horizontal surface which constitute inwardly directed extensions of the upper abutment surface and the lower abutment surface, respectively, of the groove, and wherein there is in the joined state a horizontal play between a bottom of the groove and a tip of the tongue.

5. (Twice Amended) The locking system as claimed in claim 1, wherein the outer vertical plane is located at a horizontal distance inside a vertical joint plane, which is defined by adjoining upper portions of the joined joint edges of the two floorboards.

6. (Twice Amended) The locking system as claimed in claim 1, wherein the lower abutment surfaces are located at least partially outside a vertical joint plane which is defined by adjoining upper portions of the joined joint edges of the two floorboards.

B³
7. (Amended) The locking system as claimed in claim 6, wherein the major part of the lower abutment surfaces is positioned outside the vertical joint plane.

B⁴
8. (Twice Amended) The locking system as claimed in claim 1, wherein the projecting portion and the groove are arranged in one and the same joint edge of the floorboard.

9. (Twice Amended) The locking system as claimed in claim 1, wherein the projecting portion is at least partially made in one piece with a body of the floorboard.

B⁵
10. (Amended) The locking system as claimed in claim 9, wherein the locking element of the projection portion is positioned on a level with or toward an underside of the floorboard from the lower abutment surface of the groove.

B⁶
11. (Twice Amended) The locking system as claimed in claim 1, wherein the projecting portion is at least partially formed of a material other than that of a body of the floorboard.

B⁷
12. (Amended) The locking system as claimed in claim 11, wherein the projecting portion is at least partially formed of a separate strip which is integrally connected with the board by being mounted in the factory.

13. (Twice Amended) The locking system as claimed in claim 1, wherein the projecting portion is resilient transversely of the principal plane of the floorboards.

B8 14. (Twice Amended) The locking system as claimed in claim 1, wherein the tongue is insertable into the groove and the locking element is insertable into the locking groove by a mutual horizontal joining of the joint edges of the boards.

B9 X 15. (Amended) The locking system as claimed in claim 14, wherein the groove has in an upper part a beveled portion for guiding the tongue into the groove.

B10 16. (Twice Amended) The locking system as claimed in claim 1, wherein the projecting portion, in a horizontal direction between the lower abutment surfaces of the tongue-and-groove joint on the one hand and the locking element of the projecting portion on the other hand, has a lower portion which is positioned toward an underside of said floorboard from said lower abutment surfaces.

17. (Twice Amended) The locking system as claimed in claim 1, wherein the tongue is anglable into the groove and the locking element is insertable into the locking groove by said mutual angular motion of the boards about upper portions of the joint edges while said upper portions are held in mutual contact.

cont.
B10

18. (Twice Amended) A floorboard provided along one or more sides with a locking system as claimed in claim 1.

B11

19. (Amended) The floorboard as claimed in claim 18, which has opposite long sides and short sides and which is mechanically joinable along each long side with a long side of an identical floorboard by downward angling and which is mechanically joinable along each short side with a short side of an identical floorboard by displacement along said long sides.

Please add new claims 20-24 as follows:

20. (New) The locking system of claim 1, wherein the locking system is on each of four edges of a floorboard.

21. (New) The locking system of claim 1, wherein the projecting portion is resilient.

B12 ✓

22. (New) The locking system of claim 12, wherein the strip is resilient.

23. (New) The locking system of claim 1, wherein all of the lower abutment surfaces are positioned outside the outer vertical plane.